WHAT IS CLAIMED IS:

1. A reformer comprising:

a micro reactor in which a flow path is formed for a fluid to flow inside; and

a container which accommodates the micro reactor and keeps an atmosphere on a periphery of the micro reactor at pressure lower than external pressure.

2. The reformer according to claim 1, further comprising:

adsorption means for adsorbing a medium which exists inside the container and propagates heat.

3. The reformer according to claim 1 which is manufactured by accommodating the micro reactor in the container under a depressurized atmosphere.

4. The reformer according to claim 1, further comprising:

heating means for generating heat to heat the micro reactor.

5. The reformer according to claim 1 which is manufactured by accommodating the micro reactor in the container under a heated atmosphere.

6. The reformer according to claim 1, further comprising:

heating means for heating the micro reactor for reacting in the micro reactor and for heating an atmosphere in the container for exhausting the atmosphere when the micro reactor is accommodated in

the container.

7. The reformer according to claim 5, wherein a temperature of the heated atmosphere when the micro reactor is accommodated in the container is higher than a temperature at which the fluid causes a reaction in the micro reactor.

8. The reformer according to claim 1, wherein the micro reactor comprises a reactor which changes the fluid from a liquid phase to a gas phase.

9. The reformer according to claim 1, wherein the micro reactor comprises a reforming reactor which produces hydrogen from the fluid.

10. The reformer according to claim 1, wherein the micro reactor comprises a reforming reactor which reforms carbon monoxide in the fluid into carbon dioxide.

11. The reformer according to claim 1, further comprising:

temperature measurement means for measuring the temperature of the micro reactor.

12. The reformer according to claim 1, wherein pressure of the atmosphere is 1 Pa or less than 1 Pa.

13. A power generation system comprising:

a reformer which comprises a micro reactor in which a flow path is formed for a fluid to flow inside, and a container which accommodates the micro reactor and keeps an atmosphere on a periphery of the micro

reactor at pressure lower than external pressure; and

a fuel cell which generates electricity with the fluid reformed by the reformer.

14. The power generation system according to claim 13, further comprising:

adsorption means for adsorbing a medium which exists inside the container and propagates heat.

15. The power generation system according to claim 13 which is manufactured by accommodating the micro reactor in the container under a depressurized atmosphere.

16. The power generation system according to claim 13, further comprising:

heating means for generating heat to heat the micro reactor.

17. The power generation system according to claim 13 which is manufactured by accommodating the micro reactor in the container under a heated atmosphere.

18. The power generation system according to claim 13, further comprising:

heating means for heating the micro reactor for reacting in the micro reactor and for heating an atmosphere in the container for exhausting the atmosphere when the micro reactor is accommodated in the container.

19. The power generation system according to

claim 17, wherein

a temperature of the heated atmosphere when the micro reactor is accommodated in the container is higher than a temperature at which the fluid causes a reaction in the micro reactor.

20. The power generation system according to claim 13, wherein

the micro reactor comprises a reforming reactor which produces hydrogen from the fluid.

21. The power generation system according to claim 13, further comprising:

temperature measurement means for measuring the temperature of the micro reactor.

22. The reformer according to claim 13, wherein pressure of the atmosphere is 1 Pa or less than 1 Pa.

23. A reformer comprising:

a micro reactor in which a flow path is formed for a fluid to flow inside;

a container which accommodates the micro reactor and keeps an atmosphere on a periphery of the micro reactor at pressure lower than external pressure; and

adsorption means for adsorbing a medium which exists inside the container and propagates heat.

24. The reformer according to claim 23, wherein

the adsorption means comprises a polyimide-based material.

25. The reformer according to claim 23, wherein

the adsorption means comprises a porous film.

26. The reformer according to claim 23, wherein

the adsorption means has a surface coated with a material which physically adsorbs water or oxygen.

27. The reformer according to claim 23, wherein

the adsorption means has a surface coated with a material which chemically adsorbs water or oxygen.

28. A method for manufacturing a reformer comprising the steps of:

depressurizing an atmosphere in a chamber where a micro reactor in which a flow path is formed for a fluid to flow inside, and a container for accommodating the micro reactor are installed; and

accommodating the micro reactor in the container in a state where the atmosphere in the container is at the same pressure as the atmosphere in the chamber.

29. The method according to claim 28, wherein the depressurizing is depressurizing the atmosphere to 1 Pa or lower than 1 Pa.

30. A method for manufacturing a reformer comprising the steps of:

heating an atmosphere in a chamber where a micro reactor in which a flow path is formed for a fluid to flow inside, and a container for accommodating the micro reactor are installed; and

accommodating the micro reactor in the container in a state of the heated atmosphere.

31. The method according to claim 30, wherein the heating step heats the flow path of the micro reactor to a temperature higher than a temperature at which a reaction is caused.